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| 10/025,646 | 12/19/2001 | Zvi Kamil | AER-P-2 | 8261 |

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| AGDEPPA, HECTOR A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2642 | |

DATE MAILED: 07/28/2004

#12

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/025,646 | KAMIL, ZVI | |
| | Examiner | Art Unit | |
| | Hector A. Agdeppa | 2642 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *17 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-10,12-19,21-23 and 25-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,12-19,21-23 and 25-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. This action is in response to applicant's amendment filed on 5/17/04. Claims 1 – 10, 12 – 19, 21 – 23, and 25 - 27 are now pending in the present application. **This action is made final.**

### *Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1 – 6, 9, 10, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,866,762 (Pintar) in view of US 6,014,435 (Rosen).

As to claim 1, Pintar teaches an apparatus 10 (Figs. 1 and 2 of Pintar) for restricting telephone calls, wherein apparatus 10 includes a microcontroller 100/101, read as the claimed controller, having storage means/RAM 200 and ROM 101, read as the claimed memory, piggybacked/connected thereto for storing call restriction data, i.e., list(s) of telephone numbers, and at least one call restriction, i.e., modes of operation. (Fig. 1, Abstract, Col. 3, lines 31 – 58, Col. 5, lines 22 – 39, Col. 6, lines 12 – 32 of Pintar)

Pintar further teaches a signal conditioning means 300 (Fig. 1 of Pintar) which includes a dual tone multifrequency (DTMF) decoder 301 (Fig. 2 of Pintar), read as the claimed transceiver. (Col. 3, lines 41 – 58, Col. 4, lines 44 – 51 of Pintar) Pintar teaches that means 300 and 301 can receive tone signals such as DTMF signals from a user of a telephone connected to lines 13 and 14 (Figs. 1 and 2 of Pintar) and converting those signals into their binary equivalent, i.e., a

digital signal, for transmission to microcontroller 100/101. (Col. 2, lines 19 – 27, Col. 4, lines 52 – 67 of Pintar) Pintar teaches that any incoming dialed signals are sent via this method to be analyzed by microcontroller 100/101 and if the dialed signals are determined to be a prohibited call, apparatus 10 takes further action to restrict the call. (Col. 5, lines 1 – 21 of Pintar)

However, while not discussed in detail by Pintar, it is inherent that if a call is to be allowed, the signaling path must be reversed and the signal must be converted back from a digital signal to a DTMF tone signal for transmission to the central office exchange connected by lines 11 and 12. Therefore, Pintar inherently teaches that signal conditioning means 300 and DTMF decoder 301 also receive digital signals from microcontroller 100/101 and send tone signals to the telephone lines 11 and 12. This reverse process is necessary and inherent or else any dialed signals from a telephone would be trapped in apparatus 10.

Finally, Pintar teaches that microcontroller 100/101 has both a programming and restriction mode. (Abstract, (Col. 2, lines 1 – 8, Col. 2, line 56 – Col. 3, line 18, Col. 3, lines 31 – 58, Col. 5, line 63 – Col. 6, line 51 of Pintar)

In the programming mode, an access number and a security code, read as the claimed first set of signals, are received, as well as programming command mode selection signals, read as the claimed second set of signals. (Col. 2, line 56 – Col. 3, line 1, Col. 6, lines 21 – 33 of Pintar) Remember, as discussed above, any signaling initiated by a user will be DTMF tones which must be converted to digital signals.

In the restriction mode, microcontroller 100/101 is programmed to compare telephone numbers, representing the claimed third set of signals, received from conditioning means 300/DTMF decoder 301, with stored numbers, and if a match occurs, determining the an inhibition condition exists and disconnecting apparatus 10 from telephone lines 11 and 12 thereby preventing the call from being sent/completed to the central office exchange. (Col. 3, lines 41 – 57, Col. 5, lines 1 – 21 of Pintar)

What Pintar does not teach is causing an interference on the telephone line. As discussed, Pintar teaches disconnecting the apparatus from the telephone line. However, another commonly used method in call restriction devices is to introduce interference on a telephone line/jam the telephone line to effect the same result, i.e., that of preventing call completion to a central office exchange.

Rosen teaches such a method in a call defeat apparatus. (Abstract, Col. 1, lines 45 – 67 of Rosen) It would have been obvious for one of ordinary skill in the art at the time the invention was made to have implemented applying a line interference on the telephone line instead of merely disconnecting the line inasmuch as both methods of restricting calls are very old and well known and choosing one method over the other is merely a design choice or preference.

Moreover, see Figs. 1 – 3, Col. 2, line 22 – Col. 4, line 60 of Rosen and note that the functional elements of both apparatuses are identical or at the least very similar, i.e., a microcontroller/processor memory containing call restriction procedures and stored telephone numbers for comparison, functional means for

transmitting and receiving tone/DTMF signals as well as digital signals. Again, because the purpose, end result, and design of Pintar and Rosen are at least functionally identical, and because either interference or disconnection are old and well known interchangeable methods for restriction devices, it would have been obvious to substitute one for the other in the invention of Pintar.

As to claim 26, Pintar and Rosen have been discussed above. Pintar further teaches that instead of outright prohibiting a call, a time-limited option may be invoked wherein a call will be completed and allowed to progress for a certain time period before being disconnected. (Col. 2, lines 3 – 8, lines 30 – 36, Col. 3, lines 15 – 16, Col. 6, lines 12 – 18, lines 39 – 43 of Pintar) As discussed above, combining Pintar and Rosen means that an interference would be applied to the telephone line after the certain time period.

As to claim 2, Rosen teaches that controller 6 (Fig. 2 of Rosen) detects a restriction condition and based on digital signals from when the DTMF detector 5 and autodialer 7 analyze and detect that unauthorized digits have been dialed, sending an interference (either invalidating DTMF tones, or a disruptive audio tone), read as the claimed tone signal, on the telephone to block/jam the call and prevent the call from being completed. (Col. 1, lines 45 – 67, Col. 2, lines 32 – 43 and Col. 2, line 52 – Col. 3, line 35)

As to claim 3, Rosen and Pintar have been discussed above. What they do not specifically teach is increasing the intensity of the interference signal.

However, it has already been discussed that Rosen teaches applying an interference signal of sufficient intensity so as to disrupt communications. It

would have been obvious for one of ordinary skill in the art at the time the invention was made to have implemented a feature of increasing signal intensity simply because Rosen already contemplates supplying a sufficiently intense signal. If a signal were not intense enough to disrupt communications, obviously it would have to be intensified. The motivation for both Pintar and Rosen is to restrict calls and clearly there is motivation to make certain that an interference signal is strong enough.

As to claim 4, see the rejection of claim 1 and note that the tone signals discussed are DTMF signals and therefore, the conditioning means 300/DTMF detector 301 comprise a DTMF transceiver.

As to claim 5, see the rejection of claim 1 and note that both RAM and ROM memory are taught by Pintar. ROM memory is programmed at the factory and is non-volatile memory. The RAM is powered by a power supply 201 in the event that power is lost or when the apparatus 10 of Pintar is disconnected in order to preserve the stored telephone numbers. Therefore, it too is essentially non-volatile, as long as it has power supplied thereto. Of course, no designer would ever want to use volatile memory means in such an application or else a user would have to constantly be re-entering telephone numbers to be stored – essentially, they wouldn't be stored.

As to claim 6, Pintar teaches circuitry wherein power supply 201 (Figs. 1 and 2 of Pintar) bleeds off current from telephone lines 11 – 14 (Figs. 1 and 2 of Pintar) and that when the telephone goes off-hook, backup power source 202 is prevented from sending power to power supply 201. (See the rejection of claim

5) Therefore, in essence, because power supply 201 is used to power RAM 200, apparatus 10 is only really powered during an off-hook condition when the telephone itself is receiving power from the telephone lines 11 – 14 as is standard.

Even interpreted differently, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have allowed for supplying power only during an off-hook condition because this is the only time when power is needed to operate the entire apparatus 10. The only time apparatus 10 is operated is when a call is going to be made or apparatus 10 is going to be programmed, i.e., during an off-hook condition. Therefore, a common motivation of saving power consumption would also make it obvious to receive power only during an off-hook condition.

As to claim 9, see the rejection of claim 1 and note that microcontroller 100/101 was interpreted to read on the claimed controller. Microcontrollers are generally chips anyway, hence the "micro" designation. However, even if not, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have implemented the microcontroller functionality in a chip because the motivation to make circuits and electronic/logic devices as small as possible has been and still is an extremely old and well known motivation.

As to claim 10, see the rejection of claim 1 and note that the operation of Pintar, the claimed invention, and almost any other apparatus that allows user programming allows for a security code, read as the authorization code, to be

entered thereby indicating to the apparatus that a user desires the apparatus to go into a programming mode.

As to claim 27, see the rejection of claim 1 and note that besides teaching the storing of completely restricted telephone numbers, Pintar also teaches that a user may store allowed numbers wherein microcontroller 100/101 would be programmed to determine whether the dialed number is restricted, allowed, or time-limited. (Col. 5, lines 12 – 21, Col. 6, lines 12 – 51 of Pintar) Of course, if a call is allowed, Pintar teaches that apparatus 10 will not be disconnected, thus allowing the call. The combination of Pintar and Rosen then would in turn not apply an interference signal to also allow the call.

3. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,866,762 (Pintar) in view of US 6,014,435 (Rosen) and further in view of US 5,471,524 (Colvin et al.)

Pintar and Rosen have been discussed above. Rosen teaches supplying an interference signal for a sufficient duration of time to restrict calls. What they do not teach is detecting on hook conditions and either maintaining or resuming interference.

However, this claim limitation is referring to a common trick wherein quick hook flashes, i.e., quick taps of the hook switch, usually used to invoke call-waiting or third party calling, are used to trick restrictive apparatuses. Colvin et al. teaches another call restrictive apparatus with essentially the same functionality and functional elements as Pintar and Rosen that sets a

disconnect/reset time period long enough to avoid hook flash tricks. (Figs. 2b and 3, Col. 4, line 27 – Col. 8, line 18, Col. 9, lines 1 – 24 of Colvin et al.) Therefore, for the same reasons why it would have been obvious for one of ordinary skill in the art at the time the invention was made to have combined Pintar and Rosen, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have allowed for detecting quick on-hook conditions and maintaining interference in the invention of Pintar and Rosen.

As to resuming interference, such would be obvious as well inasmuch as it merely requires another detection period and re-initiation of the reset period taught by Colvin et al. as discussed above. Clearly, one could set the reset time period of Colvin et al. to be very long so as to ensure that no hook flashes would trick the call restrictive apparatus, but for convenience sake, it would be obvious to just recheck the telephone line and resume interference. Making the reset time period too long is wasteful and probably many times unnecessary and it would be more efficient to just check for on-hook conditions.

4. Claims 12, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,866,762 (Pintar).

As to claims 12 and 19, Pintar has been discussed above. See also the rejection of claim 1.

What Pintar arguably does not teach is using a remote computer to program apparatus 10.

Pintar does teach using an external serial device with means for displaying digital information to program apparatus 10, which could be a computer, although arguably not "remote" since this device is directly connected to apparatus 10. (Col. 6, lines 52 – 62 of Pintar)

As discussed above, Pintar teaches that control of apparatus 10 is effected through signals sent on the telephone line and direct contact with a telephone connected to the telephone is not needed. Pintar already teaches allowing control and programming of apparatus 10 by a computer. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have allowed for remote computer access inasmuch as this would only require replicating the local computer functionality at a remote computer. Because of computer telephony integration (CTI) and the Internet, doing so would be elementary.

Such functionality can be likened to controlling an answering machine connected to one's home telephone line from a remote telephone which is known in the art. One can call into one's answering machine from any telephone and check messages, program outgoing messages, etc. The same reasoning and methodology could be applied to a remote computer emulating a local computer's functionality.

As to claim 13, see the rejection of claim 10. Also note that the very purpose of requiring an authorization code is to prevent an unauthorized user from modifying or disrupting apparatus 10 or any other programmable device that requires authorization. Of course the code would be sent prior to sending the

programming signals. If the reverse were true, the purpose for using an authorization code would be defeated. An authorization code is useless if sent after the to-be-authorized action.

5. Claims 14 – 19, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,866,762 (Pintar) in view of US 5,864,613 (Flood).

As to claims 14 and 15, Pintar has been discussed above regarding claims 12 and 13. What Pintar does not teach is having a remote computer embodied as an interactive voice response unit which would allow for voice prompts to be sent.

However, Flood teaches that a call restriction apparatus may be programmed via a computer such as a voice-recognition device or IVR which may be accessed when the user dials an access telephone number to that computer/IVR element. (Col. 4, lines 8 – 18 and Col. 6, lines 10 – 67 of Flood)

Moreover, such a limitation is old and well known in the telephony arts and merely makes a system component or feature/service accessible from a location other than where that component resides or where the feature/service is to be applied. A common example of this is voice mail which is associated with a home telephone number for example, but can be access and modified from anywhere/any network, remote or otherwise as long as an access number is provided, such as taught by Flood above.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used a remote computer such as an IVR in the invention of Pintar.

Firstly, as discussed above, such is an old and well known extension of many telephony apparatuses and functionality. Moreover, such a feature would merely require modification of the remote computer and nothing relating to the actual operation or functionality of the call restrictive aspect of Pintar. This is because such a limitation is only concerned with "access to" the apparatus and moreover, such a limitation is merely a convenience type of feature. A remote computer as discussed in claim 12 is maybe a little more inconvenient because a user must look at a screen and type responses to the code request or to programming prompts, whereas with an IVR, a user could just speak responses.

As to claims 16 - 18, 21, and 22, see the above rejections of claims 10, 12 and 15 and note that if one is remotely programming apparatus 10 he/she must be using a remote computer/IVR to connect to the telephone line apparatus 10 is connected to. There would be no other way to effect programming signals on that line. Remember above, that Pintar teaches programming apparatus 10 via signals received on the telephone lines 11 – 14 connected thereto. See also Figs. 1 and 2 and note the rejection of claim 1. It was discussed that apparatus 10 is located between lines 11 and 12 which go to a central office exchange and lines 13 and 14 which lead to a telephone unit. (Col. 3, lines 31 – 41 of Pintar)

6. Claims 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,866,762 (Pintar) in view of US 6,014,435 (Rosen) and further in view of US 5,864,613 (Flood).

As to claims 23 and 25, see the rejection of claims 1 and 3 and note that if a current interference signal is not sufficiently intense, it is inherent that microcontroller 100/101 of Pintar or controller 6 of Rosen would have to send another signal to autodialer 7 of Rosen to increase intensity of the interference signal. Both microcontrollers are the brains of the call restrictive apparatus and so any changes must be initiated by the microcontroller and hence another signal, read as the claimed second signal, the claimed first signal being merely the signal the microcontroller fist sends to autodialer 7 to transmit an interference signal.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1 – 10, 12 – 19, 21 – 23, and 25 – 27 have been considered but are moot in view of the new ground(s) of rejection, and any remaining arguments regarding references that were used again in this final office action are addressed in the above rejection.

For the sake of clarification though, as to the Flood reference, it is the idea of using an IVR to remotely program a call restrictive apparatus that is being considered obvious. IVRs and remote control ~~is~~ are very old and well known in the telephony arts and those skilled in the art would clearly know how to implement an IVR in the systems of Pintar, Rosen, and/or Colvin et al.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 703-305-1844. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 703-305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H.A.A.
July 23, 2004

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